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ABSTRACT

This booklet contains the mathematics test (computation and applications) for the Wisconsin Pupil Assessment Program for grades 8 and 12. The test consists of 99 items which range from measuring arithmetical skills to skills in computer programming. (JN)

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1. $25 \div 2 =$

A $12\frac{1}{2}$

B $12\frac{1}{25}$

C 12.1

D 2.5

2. $\frac{2}{3} + \frac{4}{5} =$

A $1\frac{7}{15}$

B $1\frac{1}{3}$

C $\frac{14}{15}$

D $\frac{3}{4}$

3. $.3\overline{).63}$

A 21.

B 2.1

C 0.21

D 0.021

4. $\frac{1}{2} \times 4 =$

A $\frac{1}{8}$

B 2

C 4

D 8

5.
$$\begin{array}{r} 856 \\ \times\ 46 \\ \hline \end{array}$$

A 347,536

B 85,646

C 39,376

D 8,560

6. $3\frac{1}{2}\%$ of 100 =

A 0.035

B 0.35

C 3.12

D 3.5

7. Jane bought toothpaste for $.89, a toothbrush for $1.29, and deodorant for $1.05.
The tax on these items is $.13.
If Jane paid for this with a $10 bill, what should her change be?

A $1.02

B $2.07

C $3.36

D $6.64

8.

LONZO SODA

SALE

Your Choice $1.99

6-pack of 12 oz. cans OR 2 large 40 oz. bottles

(1 qt. = 32 oz.)

Which has more Lonzo soda?

A two large 40 oz. bottles

B a six-pack of 12 oz. cans

C They have the same amount.

9. The distance between Wausau and Stevens Point is 30 miles. About how long will it take a car driving 50 miles per hour to drive between these two cities?

A 50 minutes

B 35 minutes

C 25 minutes

D 20 minutes

10.

SHORTEST DISTANCE BETWEEN CITIES FOLLOWING THE STATE HIGHWAY SYSTEM

DRIVE SAFELY

MENOMONIE	MILWAUKEE	MONROE	OSHKOSH	PHILLIPS	PORTAGE	PRAIRIE DU CHIEN	RACINE	RHINELANDER	RICHLAND CENTER	ST. CROIX FALLS	ST. PAUL, MINN.	SHAWANO	SHEBOYGAN	SPOONER	STEVENS POINT	STURGEON BAY	SUPERIOR	TOMAH	VIROQUA
264																			
231	107																		
200	80	129																	
120	265	249	187																
166	98	83	68	183															
163	179	102	131	233	114														
287	26	103	106	295	122	192													
163	227	244	147	59	159	251	253												
164	138	82	129	190	61	53	157	206											
70	331	301	269	123	235	233	366	165	234										
58	322	289	258	173	224	212	345	215	221	55									
173	141	189	61	140	122	228	167	90	180	232	231								
254	52	156	58	233	98	211	78	191	158	324	312	101							
77	319	287	253	98	221	225	343	150	220	59	109	213	306						
134	149	154	73	114	70	167	179	89	124	199	192	66	126	181					
252	141	222	93	219	161	275	167	170	223	312	311	80	89	293	131				
147	389	357	327	137	291	295	413	183	290	107	162	274	372	70	254	353			
104	162	130	108	140	64	92	186	157	60	174	162	142	153	160	75	197	230		
133	172	117	143	188	92	46	192	208	34	202	187	187	183	187	124	235	257	49	

How far is it between Milwaukee and Tomah?

A 107 miles

B 123 miles

C 156 miles

D 162 miles

11. $\frac{3}{4} \div 3 =$

A 4

B $\frac{4}{9}$

C $\frac{9}{4}$

D $\frac{1}{4}$

12. $2.5 \div 0.5 =$

A 50

B 5

C 0.5

D 0.05

13.
$$\begin{array}{r} 8.7 \\ \times\ 7.2 \\ \hline \end{array}$$

A 6,264.

B 626.4

C 62.64

D 6.264

14. $0.35\overline{)16.1}$

A 0.46

B 4.6

C 46

D 460

15. 150% of 20 =

A 10

B 15

C 20

D 30

16. $0.34 + 0.07 =$

A 0.347

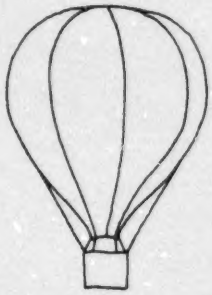
B 0.41

C 0.734

D 1.04

17.

Balloonists are concerned about air temperatures because the air gets colder as the balloon rises. This drop in temperature averages 5.5 degrees for every 1000 ft. above ground.



If the temperature at 6000 feet above the ground is 42°, what is the temperature at ground level?

A 9°

B 33°

C 75°

D 81°

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18.

A dining room ceiling is 10 feet wide and 12 feet long.

How many 1-foot-square tiles are needed to cover it?

A 10 tiles

B 22 tiles

C 44 tiles

D 120 tiles

19.

CHUNKY PEANUT BUTTER		
Size	Quantity	Price
Regular	12 oz.	$1.95
Econo	22 oz.	$3.95

Which size is the better buy?

A Regular

B Econo

C Same

20.

The Fashion Shop advertised every item in the store at 30% discount.
What would be the sale cost of a pair of blue jeans which are marked $17.50?

A $ 5.25

B $11.00

C $12.25

D $17.20

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21.

$$\begin{array}{r} 642 \\ -\ 93 \\ \hline \end{array}$$

A 735

B 549

C 548

D 449

22.

$2.14 + 0.6 + 11.02 =$

A 13.22

B 13.40

C 13.76

D 13.94

23.

20% of 100 =

A 50

B 20

C 5.0

D 0.20

24.

$8\overline{)7,289}$

A 909

B 909 r7

C 911

D 911 r1

25.

$40\overline{)2,000}$

A 500

B 200

C 50

D 20

26.

$$\begin{array}{r} 2\frac{1}{4} \\ -\ \frac{3}{4} \\ \hline \end{array}$$

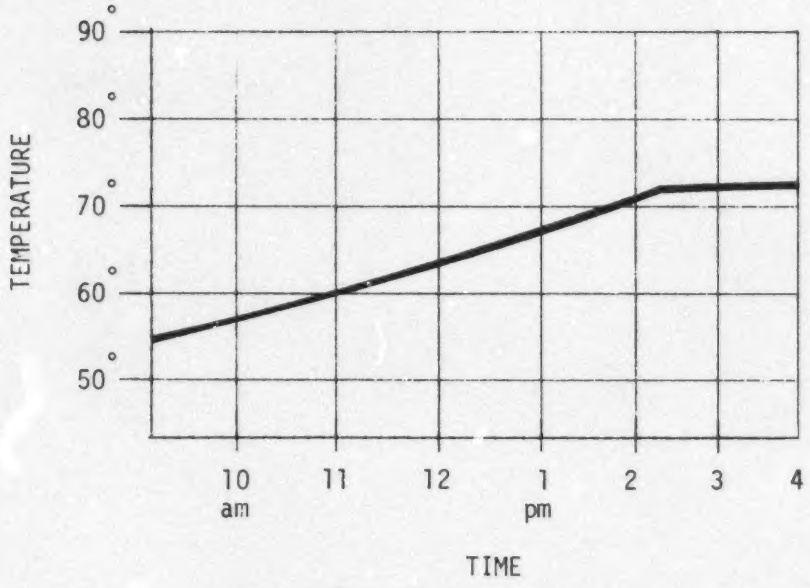
A $2\frac{1}{2}$

B $1\frac{1}{2}$

C $1\frac{1}{4}$

D $\frac{1}{2}$

27.



What time is the temperature closest to 70° on the graph?

A 10 a.m.

B 12 p.m.

C 2 p.m.

D 4 p.m.

11

28.

A person who earns $224.00 a week has the following deductions:

$33.42 Income Tax
$ 5.04 Social Security

What is the person's take home pay?

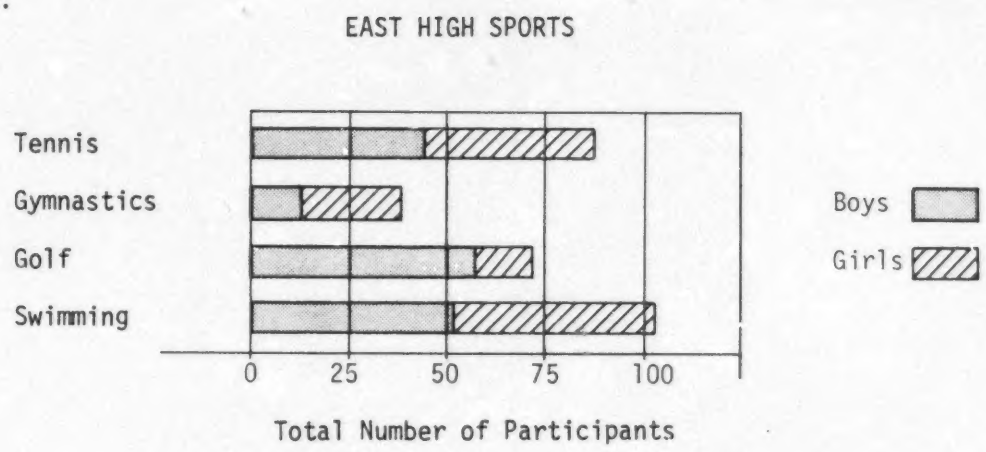
A $ 72.80 per week

B $173.60 per week

C $185.54 per week

D $262.46 per week

29.



Which sport has the most boys participating?

A Tennis

B Gymnastics

C Golf

D Swimming

30. $\frac{9}{5} - \frac{2}{3} =$

A $\frac{7}{2}$

B $\frac{7}{15}$

C $\frac{17}{15}$

D $\frac{27}{15}$

31. $\frac{7}{9} - \frac{3}{9} =$

A $\frac{3}{9}$

B $\frac{4}{9}$

C $\frac{5}{9}$

D $\frac{7}{9}$

32. $\frac{6}{N} = \frac{36}{72}$

A 12

B 42

C 216

D 432

33. 42 is ___% of 60?

A 143%

B 70%

C 42%

D 25.2%

34. $1\frac{3}{4}$
$+ 4\frac{1}{8}$

A $6\frac{1}{4}$

B $5\frac{4}{12}$

C $5\frac{7}{8}$

D $3\frac{5}{8}$

35. 30 is ___% of 60?

A 30%

B 50%

C 60%

D 200%

36.

In planning dinner, Joe wants an average of 1/2 pound of meat per person.

Which roast should he buy for 11 people?

A 5.5 lbs.

B 9.0 lbs.

C 11.5 lbs.

D 22.0 lbs.

37.

Jane wants a bicycle which costs $103.00.
She has saved $55.00 already.
Jane can save $6.00 a week.
How many more weeks will it take her to buy the bicycle?

A 7 weeks

B 8 weeks

C 9 weeks

D 10 weeks

38.

Sue spent $3.45.

What is her change from a five dollar bill?

A 1 dollar, 2 quarters, 1 nickel

B 1 dollar, 2 quarters, 1 dime, 1 nickel

C 2 dollars, 1 quarter, 2 dimes

D 2 dollars, 2 quarters, 1 nickel

39. $\frac{1}{2} \times \frac{3}{4} =$

A $\frac{6}{4}$

B $\frac{4}{6}$

C $\frac{3}{8}$

D $\frac{3}{5}$

40. 40 is ____% of 100?

A 400%

B 100%

C 40%

D 4%

41. 5 is ____% of 20?

A 100%

B 25%

C 5%

D 4%

42. $14.72 - 1.3 =$

A 1.72

B 13.42

C 14.59

D 14.61

43. $\frac{24}{36} = \frac{N}{3}$

A 12

B 8

C 4

D 2

44. $7\overline{)3.43}$

A 0.049

B 0.49

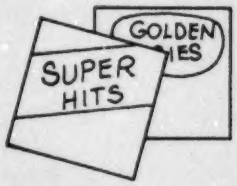
C 4.9

D 49

45.

SPECIAL SALE

Hit Records for $4.99 Each



How many records can you buy with $30.00?

A 5 records

B 6 records

C 7 records

D 8 records

46.

A large 1 lb. 4 oz. package of oatmeal _____ two small 11 oz. packages of oatmeal.
(16 oz. = 1 lb.)

A weighs less than

B weighs same as

C weighs more than

47.

A reasonable 15% tip on a $2.25 meal is:

A 15¢

B 25¢

C 35¢

D 45¢

48. $2\frac{1}{2} \times \frac{1}{2} =$

A $1\frac{1}{4}$

B $2\frac{1}{4}$

C 3

D 5

49. 12% = ___as a decimal

A 0.012

B 0.12

C 12.

D 1200.

50. .05 = ___%

A 0.5%

B 5%

C 50%

D 500%

51. 2.4 X 4 =

A 96

B 9.6

C 0.96

D 0.096

52. $1\frac{1}{2} \times 6 =$

A $\frac{1}{4}$

B 3

C $6\frac{1}{2}$

D 9

53.
$$\begin{array}{r} 0.77 \\ -\ 0.434 \\ \hline \end{array}$$

A 0.346

B 0.344

C 0.336

D 0.334

54.

Kay is going to visit friends in Nevada.
Air fare is $130.00.
If she drives, her expenses would be:

Gasoline	$60.00
Motel	$15.00
Food	$16.00

How much will Kay save by driving?

A $221.00

B $ 91.00

C $ 49.00

D $ 39.00

55.

The area of living room floor is 198 square feet.
How many square yards is the floor?
(9 sq. ft. = 1 sq. yd.)

A 22 sq. yards

B 66 sq. yards

C 594 sq. yards

D 1782 sq. yards

56.

In order to have free checking service from the bank, Joan must maintain a $100.00 checkbook balance.

If Joan's balance is $26.64, what is the minimum deposit needed for free checking?

A $126.64

B $100.00

C $ 75.54

D $ 73.36

57. $\frac{3}{12} = \frac{N}{16}$

A 3

B 4

C 7

D 64

58. $\frac{5}{7}$ is the same as:

A $5 \div 7$

B $7 \div 5$

C $5 \div \frac{1}{7}$

D $7 \div \frac{1}{5}$

59.
$$\begin{array}{r} 0.376 \\ +\ 1.823 \\ \hline \end{array}$$

A 1.199

B 1.209

C 2.199

D 2.209

60. $516 + 209 + 48 =$

A 763

B 753

C 873

D 773

61. $0.705 - 0.3654 =$

A 0.3404

B 0.3051

C 0.2949

D 0.3396

62. $6\overline{)5,436}$

A 96

B 816

C 906

D 8,106

63.

David was offered a clerk job for 40 hours a week at $3.35 an hour or a typing job at $145.00 per week.

How much more will he earn at the typing job?

A $11.00 a week

B $13.00 a week

C $13.20 a week

D $13.40 a week

64.

Jan made $22.00 for 8 hours of work.

How much did she make per hour?

A $1.40

B $1.76

C $2.75

D $3.00

65.

Curtains at least 6 feet 8 inches long are needed for a set of windows.

Which one of the following standard curtain lengths is closest to the length required?

A 66 inches

B 72 inches

C 84 inches

D 90 inches

66. $\frac{4}{5}$ = _____%

A 0.80%

B 4.5%

C 45%

D 80%

67.
$$\begin{array}{r} 0.17 \\ 3.1416 \\ +\ 8.8 \\ \hline \end{array}$$

A 11.101116

B 11.117

C 12.0116

D 12.1116

68. 12 X 1.5 =

A 17

B 18

C 170

D 180

69. 6,008 - 364 =

A 2,368

B 5,644

C 5,744

D 6,364

70. $6 \div \frac{3}{4}$ =

A $\frac{1}{8}$

B 2

C $4\frac{1}{2}$

D 8

71. 37% = ___

A $\frac{3}{7}$

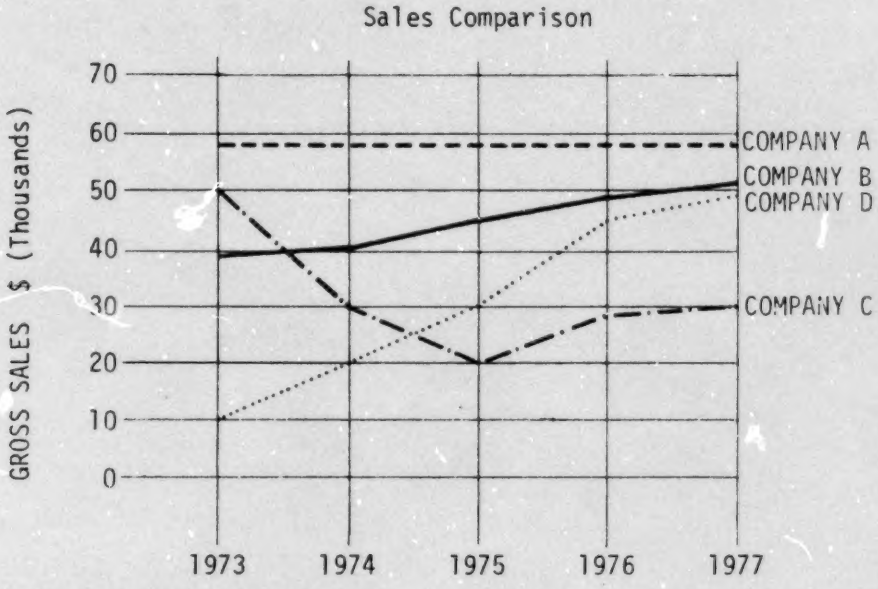
B $\frac{3}{700}$

C $\frac{37}{100}$

D $\frac{3700}{100}$

21

72.



Which company has shown the fastest growth from 1973 to 1976?

A Company A

B Company B

C Company C

D Company D

73.

Elapsed Time (Seconds)	Speed (mph)
0	0
1	10
2	20
3	40
4	60
5	90
6	120
7	150
8	190

The table shows how fast the "Big Daddy" dragster went during a drag race.

About how long did it take "Big Daddy" to reach 100 mph?

A 5.1 seconds

B 5.3 seconds

C 5.7 seconds

D 5.9 seconds

74.

The Smith Package Company makes a cardboard box which is 2" long, 2" wide, and 3" high. They also make a plastic container with the same volume.

Which of the following containers holds exactly the same amount as the box?

A 3" long, 3" wide, 1" high

B 4" long, 2" wide, 1" high

C 1" long, 1" wide, 6" high

D 4" long, 3" wide, 1" high

75.

$$\begin{array}{r} 411 \\ 346 \\ 841 \\ +\ 209 \\ \hline \end{array}$$

A 1,707

B 1,797

C 1,807

D 17,917

76.

1,000 X 100 =

A 100,000

B 11,000

C 10,000

D 1,000

77.

$\frac{1}{4} + \frac{1}{4} =$

A $\frac{1}{2}$

B $\frac{1}{4}$

C $\frac{2}{8}$

D $\frac{1}{8}$

78.

What is 6% of 75?

A 4.5

B 4.6

C 12.5

D 12.25

79.

$$\begin{array}{r} 0.0052 \\ \times\ \ 1.3 \\ \hline \end{array}$$

A 0.67600

B 0.06760

C 0.00676

D 0.000676

80.

$$\begin{array}{r} 2\frac{2}{7} \\ +\ \ \frac{3}{7} \\ \hline \end{array}$$

A $2\frac{5}{7}$

B $2\frac{5}{14}$

C $\frac{7}{7}$

D $\frac{7}{14}$

81.

In order to conserve energy one can put weather strips around windows to prevent heat loss.

How much weather stripping must you purchase to go around a 70 inch by 90 inch window?

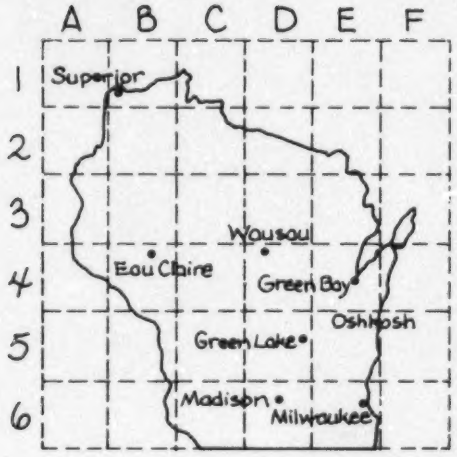
A 20 inches

B 160 inches

C 320 inches

D 6300 inches

82.



Which city or town is located in area D-5 on the map?

A Wausau

B Madison

C Oshkosh

D Green Lake

83.

$40 \times 8 =$

A 408

B 360

C 320

D 120

84.

$$5\frac{2}{3}$$
$$-\ 1\frac{1}{6}$$

A $4\frac{1}{6}$

B $4\frac{1}{2}$

C $6\frac{1}{6}$

D $4\frac{1}{3}$

85.

$$\begin{array}{r} 1.031 \\ -\ 0.875 \\ \hline \end{array}$$

A 0.906

B 0.256

C 0.244

D 0.156

86.

$$\frac{5}{10} = \frac{N}{20}$$

A 10

B 15

C 40

D 50

The table shows telephone rates from Madison to other Wisconsin cities.
Use this table to answer 87 and 88.

long distance rates within Wisconsin

from Madison to:	DIAL-DIRECT					
	Weekday Full Rate		Evening 35% Discount		Night & Weekend 60% Discount	
CITY	1st Min.	Each Add'l Min.	1st Min.	Each Add'l Min.	1st Min.	Each Add'l Min.
Appleton	$ .39	$ .26	$ .25	$ .17	$ .15	$ .11
Beloit	.33	.20	.21	.13	.13	.08
Eau Claire	.45	.32	.29	.21	.18	.13
Evansville	.24	.14	.15	.10	.09	.06
Green Bay	.41	.28	.26	.19	.16	.12
Janesville	.30	.18	.19	.12	.12	.08
La Crosse	.41	.28	.26	.19	.16	.12
Lake Geneva	.35	.22	.22	.15	.14	.09
Milwaukee	.37	.24	.24	.16	.14	.10
Oshkosh	.37	.24	.24	.16	.14	.10
Portage	.27	.16	.17	.11	.10	.07
Racine	.37	.24	.24	.16	.14	.10
Rhinelander	.46	.33	.29	.22	.18	.14
Sheboygan	.39	.26	.25	.17	.15	.11
Superior	.50	.37	.32	.25	.20	.15
Waukesha	.35	.22	.22	.15	.14	.09
Wausau	.43	.30	.27	.20	.17	.12
Wisconsin Dells	.33	.20	.21	.13	.13	.08

Total charges may be less than the sum of the initial minute(s) plus additional minutes charges

87. If the caller takes advantage of the Evening Discount, how much would it cost to call Rhinelander and talk for 5 minutes?

A $ .82

B $1.10

C $1.17

D $1.39

88. How much would it cost to call Portage and talk for one minute on a Saturday night?

A $ .07

B $ .10

C $ .17

D $ .27

89. Computers are <u>not</u> good for tasks that require:

A speed.

B accuracy.

C intuition.

D something to be done over and over again.

90. When in operation, a computer:

A follows a set of instructions written by people.

B thinks just like a person.

C recalls answers from memory.

D translates data from digital to analog code.

91. Computers <u>cannot</u> run without:

A blinking lights.

B keyboards.

C instructions.

D all of the above.

92. In order to program a computer, a person:

A can use any English language words.

B can use any English or foreign language words.

C must use programming language numbers, not words.

D must use the words from a programming language.

93. At any given moment, a computer's memory unit can store:

A programs.

B data.

C answers.

D all of the above.

94. The computer must have two types of information to solve a problem:

A the problem and the answer.

B the name of the program and user number.

C the data and the instructions.

D the name of the program and your name.

95.

Choose the correct output for the procedure described below:

1. List the three names Brown, Anderson and Crane in alphabetical order.
2. Remove the last name from the list.
3. If only one name is left, stop. Otherwise, go on to step 4.
4. List the remaining names in reverse order.
5. Go back to step 2.

Output

A Anderson, Brown, Crane

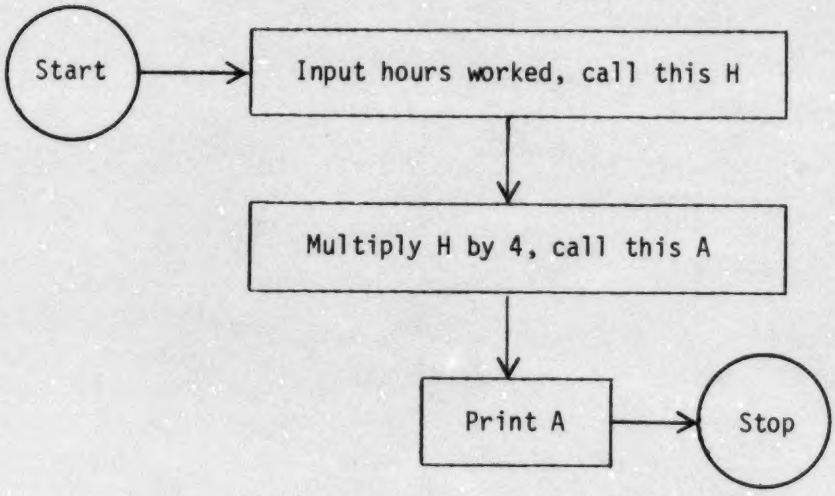
B Brown

C Anderson, Brown

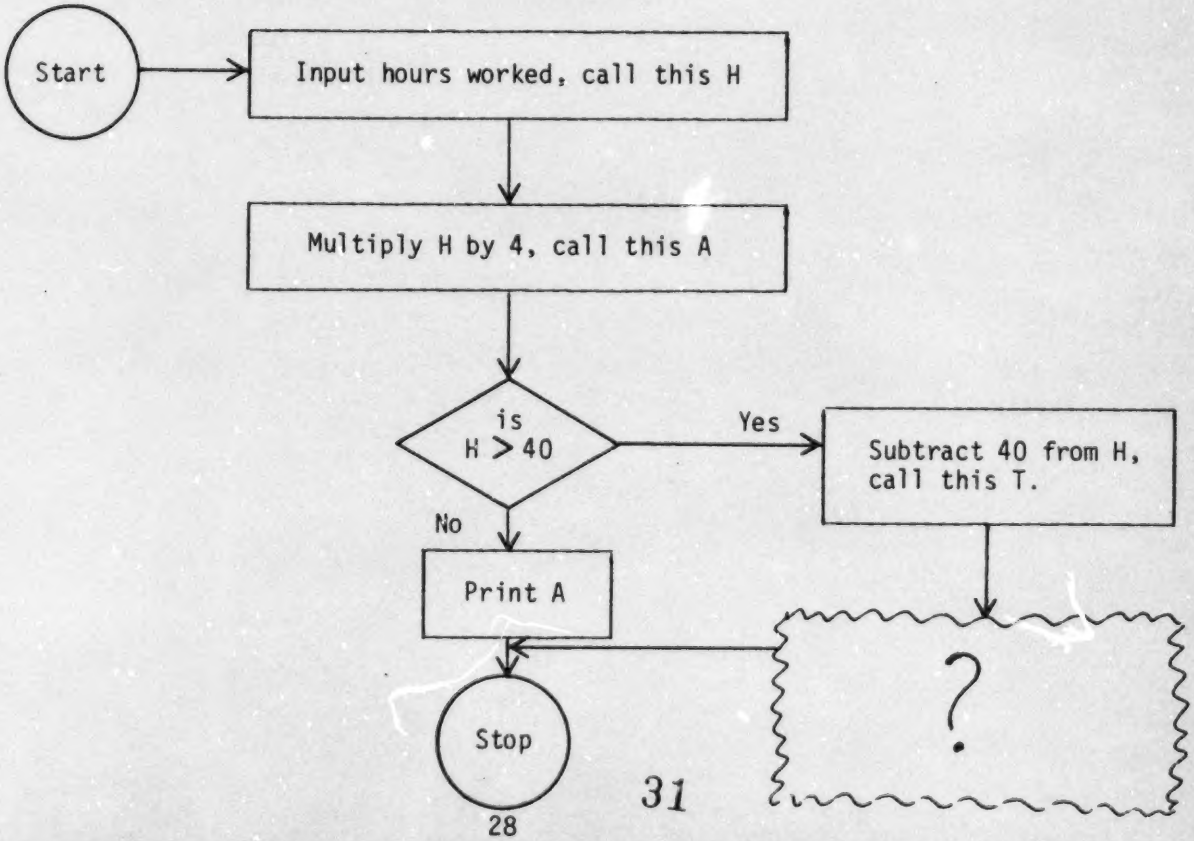
D Anderson

96.

An algorithm (flowchart) to determine the weekly wages of employees in a bakery is shown below. Employees are paid $4 per hour up to 40 hours per week.



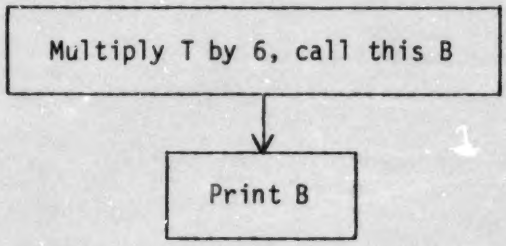
Employees are also paid "time-and-a-half" ($6 per hour) for overtime (hours worked over 40). How would you extend the flowchart below to include overtime pay?



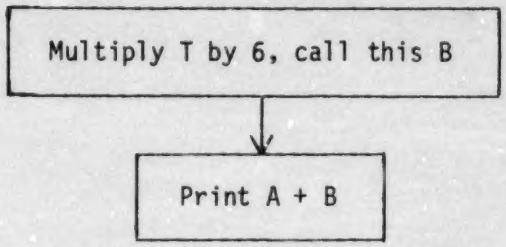
96. continued

Select one of the following to include overtime pay on the flowchart.

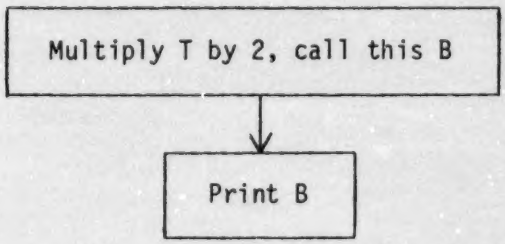
A



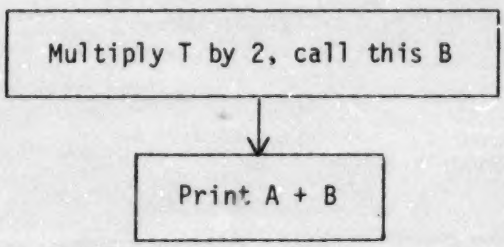
B



C



D



DIRECTIONS: If you have never written a computer program, STOP: do NOT answer items 97-99 below. Answer items 97-99 only if you have written a computer program before.

97.

Choose the correct output for the computer program shown below:

```
1     LET A = 3
2     LET B = 4
3     LET C = A
4     LET B = C
5     LET A = B
6     PRINT A,B
7     END
```

Output

A 3 4

B 4 3

C 3 3

D 4 4

98.

When run on a computer, the following program will:

```
1     INPUT A, B, C, D, E
2     LET S = A+B+C+D+E
3     LET M = S/5
4     PRINT S,M
5     END
```

A Calculate the sum of five input values.

B Calculate the average of five input values.

C Print the sum and average of five input values.

D All of the above.

99.

This program instructs the computer to count by two.

```
10    LET M = 0
20    LET M = M + 2
30    PRINT M
40    IF M < 100 THEN 20
50    END
```

Which change will produce a program which can be used to count by A? (For example, A = 3, 6, or 8.)

A
```
5 READ A
7 DATA 3, 5, 8
```

B
```
5 LET M = A
30 PRINT A
```

C
```
5 INPUT A
20 LET M = M + A
```

D
```
5 LET X = A
20 LET M = X + A
```